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EXAMINER

SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/630,390

Applicant(s)

MIZUMURA, HIROSHI

Examiner

Gevell Selby

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/9/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4,9-14,16,19,28-30,32,35,44 and 45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,9-14,16,19,28-30,32,35,44 and 45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/1/00 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/09/04 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 4, 14, 16, 19, 28-30, 32, 35, 44 and 45 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed 12/9/04 have been fully considered but they are not persuasive in regard to claims 1, 9, 11, 12, and 13.

The applicant submits that the prior art does not disclose the limitations of:

1) "when the zoom lens moves to and stops at a shot position by the control based on the shot function, the control part validates the control based on the view angle correction function" as claimed in claim 1;

2) "wherein the control part comprises a position single fixing device which fixes, when executing the control based on the view angle correction function, a value of position signal outputted to the controller to a value representing a position of the zoom

lens before executing the control based on the view angle correction function” as claimed in claim 9;

3) “wherein the controller has a limit function ... for restricting a moving range of the zoom lens” as claimed in claim 11;

4) the position fixing determining device of claim 12;

5) “where the position signal fixing device fixes the position signal, the control part executes a control for moving the zoom lens based on the control signal and the position signal fixing device returns the position signal to a value indicating an actual position of the zoom lens” as claimed 13. The Examiner respectfully disagrees.

Examiner’s Reply:

Re claim 1) In regard to claim 1, the applicant refers to the to the cited teaching of column 1, lines 60-64 in the Final Office Action as being from the Uchida reference. However, the Examiner’s reference in the claim 1 rejection of the Final office action refers to column 1, lines 60-64 of the Kasuya reference, which teaches that the lens system of Kasuya already has a controller to calculate a lens moving amount to correct a change of angle of view when the lens is moved. Therefore, it would have been obvious to one of ordinary skill in the art to add the shot function of the Uchida reference and use the view angle correction with this function as it does driving the lens any other time.

Re claim 9) In regard to claim 9, the Kasuya reference discloses wherein the control part comprises a position single fixing device or position detector (7) which fixes, when executing the control based on the view angle correction function, a value of position signal outputted to the

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controller or arithmetic unit (3) to a value representing a position of the zoom lens before executing the control based on the view angle correction function (see column 3, lines 14-34).

Re claim 11) In regard to claim 11, The Yu reference discloses that the controller uses the track lines stored in the ROM in a limit function to control the movement range and positions of the lens with in the track lines (see column 5, lines 20-44 and column 6, lines 3-15). The position of the lens is determined by the encoder (20: see column 4, lines 8-10).

Re claim 12) The Yu Reference discloses the controller having a limit function for restricting a moving range of a zoom lens as explained above in regard to claim 11. Both the Yu reference and the Kasuya references disclose position signal fixing devices. The Yu reference discloses a position signal fixing device or microcontroller 80, that fixes the initial position signal before performing the view angle correction (see column 5, lines 2-9 and 45-58, and column 6, line 63 to column 7, line 4) The Kasuya reference discloses a position signal fixing device as explained above in regard to claim 9.

Re claim 13) The Yu reference discloses when the initial position signal A is fixed the controller sends signal to vary at a determined zoom speed so that the viewing angle is maintained moving the lens to position A'. The position fixing device or microcomputer then changes the initial position signal to the position A' when another movement of the lens is performed.

Therefore, the prior art references disclose all the claim limitations of the claims explained above and their dependent claims are not allowable based on their dependency.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kasuya, US 6,134,390.**

In regard to claim 9, Kasuya, US 6,134,390, discloses a lens apparatus, comprising:

a focus lens (see figure 1, element 10);

a zoom lens (see figure 1, element 6);

a controller (see figure 1, element 3); and

a control part (see figure 1, elements 5, 9, 7, 11) which executes a control for moving the zoom lens based on a control signal provided from the controller and executes a control based on a view angle correction function for moving the zoom lens to a position to prevent changing of a view angle due to moving of the focus lens (see column 3, lines 1-34),

wherein the controller obtains, from the control part, a position signal representing a position of the zoom lens (see column 3, lines 14-20),

wherein the control part obtains, from the controller, a control signal for moving the zoom lens to a target position set by the controller according to the position signal (see column 4, lines 1-5 and 21-25),

wherein the control part comprises a position signal fixing device (see figure 1 element 7) which fixes, when executing the control based on the view angle correction function, a value of the position signal outputted from the control part to the controller to a value representing a position of the zoom lens before executing the control based on the view angle correction function (see column 3, lines 14-20).

In regard to claim 10, Kasuya, US 6,134,390, discloses the lens apparatus as defined in claim 9, wherein the position of the zoom lens before executing the control based on the view angle correction function is a position where the zoom lens is stopped by the control based on the control signal provided from the controller (see column 3, lines 30-41: The arithmetic unit controls the stopping and starting of the zoom lens before during and after view angle correction).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasuya, US 6,134,390 in view of Uchida, US 5,929,904.**

In regard to claim 1, Kasuya, US 6,134,390, discloses a lens system (see figure 1), comprising:

a lens apparatus including a movable lens (see figure 1, elements 6 and 10) and a motor (see figure 1, elements 5 and 9), one of a position and a moving rate of the movable lens being controlled with the motor (see column 2, lines 39-50);

a controller connected with the lens apparatus (see figure 1, elements z and F); and

a control part mounted in one of the lens apparatus and the controller (see figure 1, element 3),

wherein the lens system executes a control of the movable lens based on one of a control function provided in the lens apparatus (see column 3, lines 14, 34) and a control function provided in the controller (see column 2, lines 28-37),

wherein the control part obtains contents of a control of the movable lens based on the one of the control functions, and the control part executes the control of the movable lens based on the obtained contents of the control (see column 3, lines 14-34),

wherein the control function provided in the lens apparatus includes a view angle correction function which is an operation of moving a zoom lens to prevent a change of a view angle due to moving of a focus lens (see column 1, lines 60-66);



wherein the control of the movable lens includes a control of a zoom lens (see figure 1, element 6 and column 2, lines 39-44); and

the control part validates the control based on the view angle function (see column 1, lines 60-64).

The Kasuya reference does not disclose:

wherein the control function provided in the controller includes at least one of a shot function and a limit function, wherein the shot function is an operation of controlling the zoom from a current zoom setting to a preset zoom setting, and wherein the limit function is an operation of controlling zoom to restrict the zoom settings to a preset range and

wherein the zoom lens moves to and stops at a shot position by the control based on the shot function.

Uchida, US 5,929,904, discloses a camera with a lens system with a shot function wherein the camera moves to a preset location and zoom setting when one of the preset buttons is pressed (see column 7, lines 4-37) and a limit function wherein the zooming of the camera is controlled by the telephoto button (52) and a wide angle button (54) to zoom (see column 3, lines 31-35: It is inherent that the zoom function is operated within a preset maximum and minimum zoom range according to the specifications on the zoom lens.). Uchida discloses wherein the zoom lens moves to and stops at a shot position by the control based on the shot function (see figure 6 and column 6, line 65 to column 7, lines 3)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, to have at least one of a shot function or limit function as claimed in claim 1, in order to make the camera easier to use by zooming to a preset setting by pressing a button.

**4. Claims 4, 14, 16, 19, 28-30, 32, 35, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasuya, US 6,134,390, in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368.**

In regard to claim 4, Kasuya, US 6,134,390, discloses a lens system (see figure 1), comprising:

a lens apparatus including a movable lens (see figure 1, elements 6 and 10) and a motor (see figure 1, elements 5 and 9), one of a position and a moving rate of the movable lens being controlled with the motor (see column 2, lines 39-50);

a controller connected with the lens apparatus (see figure 1, elements z and F); and

a control part mounted in one of the lens apparatus and the controller (see figure 1, element 3),

wherein the lens system executes a control of the movable lens based on one of a control function provided in the lens apparatus (see column 3, lines 14, 34) and a control function provided in the controller (see column 2, lines 28-37),

wherein the control part obtains contents of a control of the movable lens based on the one of the control functions, and the control part executes the control

of the movable lens based on the obtained contents of the control (see column 3, lines 14-34),

wherein the control function provided in the lens apparatus includes a view angle correction function which is an operation of moving a zoom lens to prevent a change of a view angle due to moving of a focus lens (see column 1, lines 60-66);

wherein the control of the movable lens includes a control of a zoom lens (see figure 1, element 6 and column 2, lines 39-44);

wherein the zoom lens moves to and stops at a shot position by the control based on the shot function (see Uchida: see figure 6 and column 6, line 65 to column 7, lines 3), the control part validates the control based on the view angle function (see Kasuya: column 1, lines 60-64).

The Kasuya reference does not disclose:

wherein the control function provided in the controller includes at least one of a shot function and a limit function, wherein the shot function is an operation of controlling the zoom from a current zoom setting to a preset zoom setting, and wherein the limit function is an operation of controlling zoom to restrict the zoom settings to a preset range.

Uchida, US 5,929,904, discloses a camera with a lens system with a shot function wherein the camera moves to a preset location and zoom setting when one of the preset buttons is pressed (see column 7, lines 4-37) and a limit function wherein the zooming of the camera is controlled by the telephoto button (52) and a wide angle button (54) to

zoom (see column 3, lines 31-35: It is inherent that the zoom function is operated within a preset maximum and minimum zoom range according to the specifications on the zoom lens.)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, to have at least one of a control function or limit function as claimed in claim 1, in order to make the camera easier to use by zooming to a preset setting by pressing a button.

The Kasuya reference and the Uchida reference do not disclose that the control part executes the control based on the limit function prior to the view angle correction function in a case where the zoom lens moves to an outside of a limit position based on the limit function by executing the control based on the view angle correction function.

Masunaga et al., US 5,838,368, discloses a camera with a lens system uses a priority designating device to set the priority of one of the systems control functions (see column 26, line 64 to column 27, line 6). The controller moves the system according to which function is set to have priority, such that that function is performed first (see column 27, lines 7-15). It would have been obvious to one of ordinary skill in the art to configure a limit function priority mode to move the zoom lens to the correct position when it is outside of the limits before performing view angle correction because any corrections made before moving the lens back inside the limits would be invalid and have to be corrected again, thus only one correction is needed when viewing angle correction is performed afterwards.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of configure Kasuya in view of Uchida and further in view of Masunaga to have the control part executes the control based on the limit function prior to the view angle correction function in a case where the zoom lens moves to an outside of a limit position based on the limit function by executing the control based on the view angle correction function, in order to prevent the need for multiple view angle corrections.

In regard to claims 14 and 30, Kasuya, US 6,134,390, discloses a lens control system and method for controlling the system, comprising:

a zoom lens (see figure 1 , element 6); and

a controller configured to control a movement of the zoom lens according to a priority of performing a view angle correction function, wherein the view angle correction function is an operation of moving the zoom lens to prevent a change of a view angle due to moving of a focus lens.

The Kasuya reference does not disclose at least one of a limit function and a shot function, wherein the shot function is an operation of controlling the movement of the zoom lens from a current position to a preset position, and wherein the limit function is an operation of restricting the movement of the zoom lens to a preset range.

Uchida, US 5,929,904, discloses a camera with a lens system with a shot function wherein the camera moves to a preset location and zoom setting when one of the preset buttons is pressed (see column 7, lines 4-37) and a limit function wherein the zooming of

the camera is controlled by the telephoto button (52) and a wide angle button (54) to zoom (see column 3, lines 31-35: It is inherent that the zoom function is operated within a preset maximum and minimum zoom range according to the specifications on the zoom lens.)

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, to have at least one of a control function or limit function as claimed in claim 1, in order to make the camera easier to use by zooming to a preset setting by pressing a button.

The Kasuya reference and the Uchida reference do not disclose that the controller is configured to perform the shot function prior to performing the view angle correction function when the shot function is activated, and wherein the view angle correction function is performed based on the image of the object after performing the shot function.

Masunaga et al., US 5,838,368, discloses a camera with a lens system uses a priority designating device to set the priority of one of the systems control functions, including a zoom function (see column 26, line 64 to column 27, line 6). The controller moves the system according to which function is set to have priority, such that that function is performed first (see column 27, lines 7-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of configure Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368, to have shot function prior to performing the view angle correction function when the shot function is activated, and

wherein the view angle correction function is performed based on the image of the object after performing the shot function, in order to prevent the need for multiple view angle corrections.

In regard to claims 16 and 32, Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368, discloses the lens system and method for controlling the system as defined in claims 14 and 30, respectively. The Kasuya reference discloses that the controller is configured to control a zoom lens movement rate based on a difference between the preset position and the current position (see column 3, lines 61-67). The Kasuya reference discloses further comprising:

a zoom lens movement rate limit setting device configured to set a zoom lens movement rate limit, wherein the controller is configured to control the zoom lens movement rate also based on the zoom lens movement rate limit (see column 4, lines 5-25);

wherein the zoom lens moving rate of the zoom lens decreases at a proximity of a limit position (It is inherent the moving rate of the zoom lens decreases at a proximity of the end unit position of the wide or tele end of the lens track, so that the lens can stop).

In regard to claims 19 and 35, Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368, discloses the lens control system and method for controlling the system as defined in claims 14 and 30, respectively. It is implied in the Uchida reference that the controller is configured to restrict the movement of the zoom lens to the preset range when performing the view

angle correction function when the limit function is activated because the zoom lens cannot move outside the preset maximum and minimum setting of the telephoto and wide-angle buttons (see column 3, lines 31-35).

In regard to claims 28 and 44, Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368, discloses the lens control system and method for controlling the system as defined in claims 14 and 30, respectively. The Uchida reference discloses a limit function setting device configured to set at least one of a telephoto limit and a wide photo limit (see column 3, lines 31-35).

In regard to claims 29 and 45, Kasuya, US 6,134,390 in view of Uchida, US 5,929,904, and further in view of Masunaga et al., US 5,838,368, discloses the lens control system and method for controlling the system as defined in claims 28 and 44, respectively. The Uchida reference discloses that least one of a telephoto limit and a wide photo limit is manually settable (see column 3, lines 31-35).

**5. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, US 5,434,621, in view of Kasuya, US 6,134,390.**

In regard to claim 11, Yu, US 5,434,621, discloses a lens apparatus, comprising:

- a focus lens (see figure 3, element 12);
- a zoom lens (see figure 3, element 11);
- a controller (see figure 3, element 80); and
- a control part (see figure 3, elements 20 and 90) which executes a control for moving the zoom lens based on a control signal provided from the controller (see column 4, lines 40-44) and executes a control based on a view angle



correction function for moving the zoom lens to a position to prevent changing of a view angle (see column 6, line 48 to column 7, line 4);

wherein the controller has a limit function for obtaining, from the control part, a position signal representing a position of the zoom lens (see figure 3, elements 20 and column 4, lines 8-10) and for restricting a moving range of the zoom lens so that the zoom lens does not move to an outside of a predetermined limit position based on the position signal (see column 5, lines 20-44 and column 6, lines 3-15: The controller uses the track lines stored in the ROM in a limit function to control the movement range and positions of the lens.), wherein the control part comprises:

a limit position determining device (see figure 3, element 80) which determines the limit position by changing a value of the position signal being outputted from the control part to the controller from a value representing an actual position of the zoom lens (see column 6, lines 58-62) and detecting a change of the control signal outputted from the controller with respect to the changed value of the position signal (see figure 2, step S5, column 5, lines 45-58, and column 6, line 63- column 7, line 4);

[When the object being captured moves or the photographer moves, the camera detects the zooms lens is out of position or outside of the limit and corrects the viewing angle by moving the zoom lens]; and

a restricting device (see figure 3, element 80) which restricts a moving range of the zoom lens so that the zoom lens does not move to an outside of the

limit position determined by the limit position determining device (see column 6, line 65 to column 7, line 4).

The Yu reference does not disclose the view angle correction function the zoom lens position due to the movement of the focus lens.

Kasuya, US 6,134,390, discloses a camera system wherein the control function provided in the lens apparatus includes a view angle correction function which is an operation of moving a zoom lens to prevent a change of a view angle due to moving of a focus lens (see column 1, lines 60-66).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Yu, US 5,434,621, in view of Kasuya, US 6,134,390, to have a view angle correction function which is an operation of moving a zoom lens due to moving of a focus lens in order to prevent a change of a view angle.

In regard to claim 12, Yu, 5,434,621, discloses a lens apparatus, comprising:

- a focus lens (see figure 3, element 11);

- a zoom lens (see figure 3, element 12);

- a controller (see figure 3, element 80); and

- a control part (see figure 3, elements 20 and 90) which executes a control for moving the zoom lens based on a control signal provided from the controller (see column 4, lines 40-44) and executes a control based on a view angle correction function for moving the zoom lens to a position to prevent changing of a view angle (see column 6, line 48 to column 7, line 4),

wherein the controller has a limit function for obtaining, from the control part, a position signal representing a position of the zoom lens (see figure 3, elements 20 and column 4, lines 8-10) and for restricting a moving range of the zoom lens so that the zoom lens does not move to an outside of a predetermined limit position based on the position signal (see column 5, lines 20-25), wherein the control part comprises:

a position signal fixing device (see figure 3, element 80) which fixes, when executing the control based on the view angle correction function by the control part, a value of the position signal outputted from the control part (see column 5, lines 2-9) to the controller to a value representing a position of the zoom lens before executing the control based on the view angle correction function (see figure 2, step S5, column 5, lines 45-58, and column 6, line 63-column 7, line 4);

[When the object being captured moves or the photographer moves, the camera detects the zoom lens is out of position or outside of the limit and corrects the viewing angle by moving the zoom lens.];

a limit position determining device (see figure 3, element 80) which determines the limit position by changing a value of the position signal being outputted from the control part to the controller from a value representing an actual position of the zoom lens (see column 6, lines 58-62) and detecting a change of the control signal outputted from the controller with respect to the

changed value of the position signal (see figure 2, step S5, column 5, lines 45-58, and column 6, line 63- column 7, line 4); and

a restricting device (see figure 3, element 80) which restricts a moving range of the zoom lens so that the zoom lens does not move to an outside of the limit position determined by the limit position determining device (see figure 4 and column 6, line 63- column 7, line 4).

The Yu reference does not disclose the view angle correction function moves the zoom lens due to moving of the focus lens.

Kasuya, US 6,134, 390, discloses a camera system wherein the control function provided in the lens apparatus includes a view angle correction function which is an operation of moving a zoom lens to prevent a change of a view angle due to moving of a focus lens (see column 1, lines 60-66).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Yu, US 5,434,621, in view of Kasuya, US 6,134,390, to have a view angle correction function which is an operation of moving a zoom lens due to moving of a focus lens in order to prevent a change of a view angle.

In regard to claim 13, Yu, US 5,434,621, in view of Kasuya, US 6,134,390, discloses the lens apparatus as defined in claim 12. The Yu reference discloses that when the control signal provided from the controller changes by at least a predetermined value in a case where the position signal fixing device fixes the position signal, the control part executes a control for moving the zoom lens based on the control signal and the position

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signal fixing device returns the position signal to a value indicating an actual position of the zoom lens (see column 6, line 58 to column 7, line 4).

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gvs

  
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PRIMARY EXAMINER